IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: YUNG CHI PAINY & VARNISH MFG. CO., LTD.
Attorney Docket No.: 08688.0339US01
Application No.: 10/820,345 Art Unit: 1793/Confirmation No.: 8124
Filed: April 7, 2004 Examiner: HAILEY, PATRICA L
Title: COMPOSITIONS AND METHOD FOR SURFACE TREATMENT OF PIGMENTS

DECLARATION UNDER 37 C.F.R. § 1.132

TO THE COMMISSIONER FOR PATENTS:

I, Ping-Lin Kuo, do hereby declare that:

1. I am one of the co-inventors of the invention claimed in the above-identified patent application.

2. In response to the implicit requirement set forth in the Advisory Action and the Office Action dated May 06, 2008, I had conducted a comparative test, in which, as set forth in the Attachment Sheet, except for the surface treatment of pigment particles being carried out at ambient temperature, all the procedures conducted for the comparative example are similar to Example 3 described in the Specification as originally filed.

3. The test results, as tabulated in the Attachment Sheet, show that, as compared to Example 3 of this invention, the comparative example carried out at room temperature (designed to simulate the conditions used in the example of Mullin's patent) exhibits inferior properties, i.e., higher viscosity, larger particle size, higher Ti, and viscosity instability determined at 50℃ after 7 days. The results readily attest to the criticality of the limitation of the "elevated temperature," a meritorious feature as claimed in this invention.

4. Pursuant to the requirements of 28 U.S.A. Section 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 10, 2008.

ATTACHMENT SHEET

Comparative Example

The reactants, the reacting procedure, and the reacting conditions are similar to Example 3 set forth in the Specification of this invention except that the reaction was conducted at room temperature instead of 90℃ used in Example 3. To wit, pursuant to the experimental procedure, 1.5 parts by weight of glycidyl aliphatic ester, 10 parts by weight of pigment BTCF (PR254), and 88.5 parts by weight of toluene were mixed in a mixer for 2 hours. Then the mixture was further mixed using silica-zirconia beads having a diameter of about 0.3 to 0.4 mm for 6 hours followed by drying under vacuum in Rotavapor to concentrate the slurry. The slurry was finally dried and ground into a powdered form.

20 parts by weight of the powder thus obtained was mixed with 9.0 parts by weight of a dispersant (Disperbyk 163) and 71 parts by weight of propylene glycol mono methyl ether acetate (PMA) followed by milling to form a dispersion. The viscosity value, Ti value (thixotropic index), average particle size, and viscosity stability of the dispersion obtained from the comparative example were determined and compared with those of Example 3. The results are shown in the following Table.

Example	Viscosity (cps)	Ti	Average particle size (nm)	Viscosity 50℃, 7 days
Comparative Example	17.8	1.41	240.5	48
Example 3 of this invention	8.6	1.26	115.8	9.1